

WHAT IS CLAIMED IS:

1. An image projecting apparatus forming an image by projecting a light irradiated from a light source onto a digital micromirror panel, comprising:

the digital micromirror panel configured such that a normal plane of a movable mirror surface of the digital micromirror panel, which is parallel with a longer side of the movable mirror surface, is parallel with an optical axis of the light source;

a first reflective mirror configured to reflect the light from the light source at a predetermined angle; and

a second reflective mirror configured to receive the light reflected from the first reflective mirror and to reflect the light onto the movable mirror surface of the digital micromirror panel.

2. The image projecting apparatus of claim 1, wherein the first and the second reflective mirrors are configured such that an optical path of the light from the light source does not cross the normal plane of the digital micromirror panel until the light is incident on the movable mirror surface.

3. The image projecting apparatus of claim 1, wherein the second reflective mirror is configured such that the light from the first reflective mirror is reflected from the second reflective mirror to be incident on the movable mirror surface of the digital micromirror panel, with an angle between the normal line of the movable surface and the incident light being 1.5~2.5 times greater than the angle at which the digital micromirror is tilted, and also with an angle between the orthographic projective line of the incident light and the longer side of the movable mirror surface being 40°-50°.

4. The image projecting apparatus of claim 3, further comprising a first lens group provided with at least one lens, having a positive refractivity, and disposed on the optical path between the light source and the first reflective mirror; and

a second lens group provided with at least one lens, having a positive refractivity, and disposed on the optical path between the second reflective mirror and the digital micromirror panel.

5. The image projecting apparatus of claim 4, further comprising a third lens group provided with at least one lens, having a positive refractivity,

and disposed on the optical path between the first reflective mirror and the second reflective mirror.

6. The image projecting apparatus of claim 1, further comprising a square beam generator provided between the light source and the first reflective mirror, the square beam generator configured to transform the light from the light source into a square beam of a predetermined aspect ratio and to output the transformed square beam,

wherein the digital micromirror panel is arranged such that the square beam from the square beam generator is incident on a corresponding part of the movable mirror surface.